

U.S. Patent Application Serial No. 10/073,926
Amendment Accompanying RCE dated March 1, 2004
Reply to OA of October 1, 2003

REMARKS

Claims 6, 8-13 and 15 are pending in this application. Claim 6 has been amended herein.

The rejection of claims 6, 8-13 and 15 under 35 U.S.C. §103(a) as being unpatentable over Hoene is maintained for reasons of record.

Reconsideration of the rejection is respectfully requested in view of the amendment to claim 6. Claim 6 has been amended to change the weight ratio (A1/A2) from “70/30 - 30/70” to “65/35 - 20/80”. A corresponding amendment to the weight ratio was made during the prosecution of parent application 09/712,161.

According to the present invention, a graft copolymer (A) may have a principal chain (A1) consisting of a copolymer of styrene with a (meth)acrylate monomer and a side chain (A2) which is a ring-opening polymerized polyether side chain consisting of a polyoxyalkylene ether, wherein the weight ratio of A1/A2 is within a range of 65/35 to 20/80.

In contrast, according to Hoene, the ratio (A1/A2) of the principal chain (A1) consisting of an unsaturated monomer with respect to the side chain (A2) consisting of a polyalkylene ether is within a range of 99.5/0.5 to 70/30. Accordingly, there is no overlap between the claimed range for the weight ratio (A1/A2) and the corresponding ratio in Hoene in the ratio A1/A2. Applicants therefore submit that the claims, as amended, are novel and non-obvious over Hoene.

In addition, Applicants respectfully submit that the compatibilizing agent according to the present invention has unexpected effects over Hoene. To demonstrate these unexpected effects,

U.S. Patent Application Serial No. 10/073,926
Amendment Accompanying RCE dated March 1, 2004
Reply to OA of October 1, 2003

experiments were carried out, the procedure and the results thereof being shown in the attached Declaration under 37 CFR §1.132. Applicants note that this Declaration is a copy of the Declaration filed on August 8, 2002, in parent application U.S. Serial No. 09/712,161, and which addressed similar issues to those of the present rejection.

According to the results of the experiments, the copolymer (compatibilizing agent) of the present invention, in which the ratio of A1/A2 is limited to the range of 63/36-20/80, can impart excellent storage stability to a liquid unsaturated polyester resin composition. That is, according to the experiments, when the weight ratio of A1/A2 was 61/39, 65/35, or 41/59, the liquid unsaturated polyester resin composition showed excellent storage stability. A radical copolymerizable unsaturated resin composition comprising the copolymer (compatibilizing agent) according to the present invention, a radical copolymerizable unsaturated resin (an unsaturated polyester), a polymerizable unsaturated monomer (styrene), and an addition polymerized polymer (a low profile additive) has excellent compatibility and does not easily separate. Accordingly, a cured article having excellent physical properties can be obtained from the radical copolymerizable unsaturated resin composition having the compatibilizing agent according to the present invention.

On the other hand, the storage stability of the liquid unsaturated polyester resin composition containing the copolymer of ratio (A1/A2) = 71/29, which is encompassed by Hoene, was inferior to that of the present invention. It should be noted that although the resin solution stability tests described in the present application were carried out at room temperature (about 20 to 25°C), the resin solution stability tests in the attached Declaration were carried out at 40°C, which is more

U.S. Patent Application Serial No. 10/073,926
Amendment Accompanying RCE dated March 1, 2004
Reply to OA of **October 1, 2003**

severe than the conditions in the present application, taking storage conditions in summer into consideration.

Applicants submit that this Declaration under 37 CFR 1.132 further supports the assertion that the claims, as amended, are novel and non-obvious over Hoene.

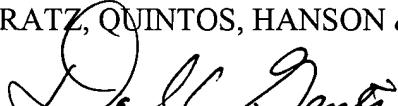
U.S. Patent Application Serial No. 10/073,926
Amendment Accompanying RCE dated March 1, 2004
Reply to OA of **October 1, 2003**

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP


Daniel A. Geselowitz, Ph.D.

Agent for Applicants
Reg. No. 42,573

DAG/alw

Atty. Docket No. **001514A**
Suite 1000
1725 K Street, N.W.
Washington, D.C. 20006
(202) 659-2930



23850

PATENT TRADEMARK OFFICE

Attachment : Submission of Declaration under 37 CFR 1.132

Q:\FLOATERS\dgeselowitz\00\001514A\03-01-04 RCE Amend